

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Li *et al.*

Appl. No.: 08/852,824

Filed: May 7, 1997

For: **Human G-Protein Coupled  
Receptors**

Art Unit: 1646

Examiner: Basi, N.

Atty. Docket: 1488.1220000/EKS/EJH

**Declaration of Steven M. Ruben  
Under 37 C.F.R. § 1.132**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

1. I, Steven M. Ruben, hereby declare and state as follows:
2. I am a named inventor of the captioned application, which is assigned to Human Genome Sciences, Inc. (HGS), and I am presently employed by HGS. The work described below was done by myself, under my supervision, or as part of a collaborative research effort with other individuals at HGS.

***Human Epstein Barr Virus-Induced G-Protein Coupled Receptor-2 (EBI-2)***

3. We obtained a cDNA clone encoding a human Epstein Barr virus-induced G-protein coupled receptor-2 (EBI-2) by screening a human hippocampus cDNA library. This clone was designated HHPGS02. We determined nucleotide sequence information for the HHPGS02 clone, as described below, using sequencing methods which were routine and publicly available as of the May 7, 1997 filing date of the present application. The HHPGS02 clone that we obtained this sequence information from was deposited with the American Type Culture

Collection (ATCC) on April 28, 1997 and was given ATCC Accession No. 209003. (See Attachment A.)

4. Evidence that the human HHPGS02 cDNA was deposited at the ATCC as Accession No. 209003 is provided by comparing the ATCC Deposit Receipt (Attachment A) with the information provided in the IRIS notebook page (entitled "Sequence Worksheet") included herewith as the first page of Attachment B.<sup>1</sup> The section of the page entitled "Sequence Information" corresponds clone HHPGS02<sup>2</sup> with the "HGS Code," 405439. HGS Code 405439 represents a particular sequence entry in IRIS for cDNA clone HHPGS02. HGS Code 405439 appears as the identifier on the ATCC deposit receipt. (See Attachment A.) This indicates that the clone used to obtain the sequence information of HGS Code 405439 was deposited. In other words, even though, as explained below, SEQ ID NO:1 and SEQ ID NO:2 in the Sequence Listing of the present application as originally filed, had typographical errors due to attorney error, the human HHPGS02 cDNA clone used to obtain the original, correct sequence data was deposited at the ATCC.

5. Attachment B provides four pages of data from the IRIS electronic notebook which shows the sequencing results of the human EBI-2 cDNA clone (*i.e.*, HHPGS02). The HHPGS02 sequence was obtained using a 373 Automated DNA sequencer (Applied Biosystems, Inc.). Sequencing accuracy using this method is predicted to be greater than 97%.

6. The information obtained from the HHPGS02 sequencing run differs from the Sequence Listing currently on file in the present application at four positions. In particular, SEQ

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<sup>1</sup>IRIS is an electronic notebook used by HGS scientists to enter and maintain sequence data.

<sup>2</sup>The "XX" designation added to the 7-character clone ID on the IRIS Notebook pages, e.g., HHPGS02, merely indicates that the sequence of that clone is full-length.

ID NO:1 contains typographical errors at the following nucleotide positions: position 242, which should be A rather than T; position 266, which should be C rather than A; position 1870 (in the 3' untranslated region), where a T should be deleted, and position 2206, where an N should be deleted. These typographical errors in the nucleotide sequence result in the following errors to the encoded amino acid sequence depicted as SEQ IDNO:2: an isoleucine at position 6 should be replaced with an asparagine, and an asparagine at position 14 should be replaced with a threonine. Both of these changes are reflected in the HPGS02 amino acid sequence data shown on the third and fourth pages of Attachment B, as well as in an amino acid alignment originally filed with the present application as Figure 2.

7. I believe that the actual nucleotide sequence of the human HPGS02 cDNA clone is the same as that originally entered in the IRIS notebook.

8. I am of the opinion that the correct EBI-2 nucleotide and amino acid sequences would have been apparent to one skilled in the art in possession of ATCC Deposit No. 209003 and the data from the HPGS02 sequencing run, as of the May 7, 1997 filing date of the present application. This is so because the correct EBI-2 coding sequence can be readily determined from the deposited clone and methods for sequencing this clone were routine in the art in May of 1997.

***Human Endothelium Differentiaion Gene-1-Like (EDG-1-Like) G-Protein Coupled Receptor***

9. We obtained a cDNA clone encoding a human endothelium differentiation gene-1-like (EDG-1-like) G-protein coupled receptor by screening a cDNA library derived from human activated neutrophils. This clone was designated HNFDL69. We determined nucleotide sequence information for the HNFDL69 clone, as described below, using sequencing methods which were routine and publicly available as of the May 7, 1997 filing date of the present application. The

HNFDL69 clone that we obtained this sequence information from was deposited with the American Type Culture Collection (ATCC) on April 28, 1997 and was given ATCC Accession No. 209004 (*See* Attachment A.)

10. Evidence that the human HNFDL69 cDNA was deposited at the ATCC as Accession No. 209004 is provided by comparing the ATCC Deposit Receipt (Attachment A) with the information provided in the IRIS notebook page (entitled "Sequence Worksheet") included herewith as the first page of Attachment C. The section of the page entitled "Sequence Information" corresponds clone HNFDL69 with the "HGS Code" 563238. HGS Code 563238, represents a particular sequence entry in IRIS for cDNA clone, HNFDL69. HGS code 563238 appears as the identifier on the ATCC deposit receipt. (*See* Attachment A.) This indicates that the clone used to obtain the sequence information of HGS Code 563238 was deposited. In other words, even though, as explained below, SEQ ID NO:3 and SEQ ID NO:4 of the Sequence Listing in the present application as originally filed, had typographical errors due to attorney error, the human HNFDL69 cDNA clone used to obtain the original, correct sequence data was deposited at the ATCC.

11. Attachment C provides three pages of data from the IRIS electronic notebook which shows the sequencing results of the human EDG-1-like cDNA clone (*i.e.*, HNFDL69). The HNFDL69 sequence was obtained using a 373 Automated DNA sequencer (Applied Biosystems, Inc.). Sequencing accuracy using this method is predicted to be greater than 97%.

12. The information obtained from the HNFDL69 nucleotide sequencing run differs from the Sequence Listing currently on file in the present application in two positions. In particular, SEQ ID NO:3 contains typographical errors at the following nucleotide positions: position 828, which should be T rather than C; and position 831, which should be T rather than

A. Note that this latter typographical error introduced a stop codon into the open reading frame, causing the amino acid sequence, as translated from the sequence with the typographical error, to stop at position 260. Accordingly, these typographical errors in the nucleotide sequence result in the following errors to the encoded amino acid sequence depicted as SEQ IDNO:4: the serine at position 260 should be replaced with phenylalanine, and the translation should continue to amino acid 384, as depicted in the original translation provided on the third page of Attachment C.

SEQ ID NO:4 further contains typographical errors at the following amino acid positions: position 191, which should be Asp rather than Asn, position 202, which should be Lys rather than Arg, and position 204, which should be Tyr rather than Thr. In addition, the translation should start with the Met at position 1, rather than the Ala at position -16. Both of the nucleotide sequence changes are reflected in the HNFDL69 nucleotide sequence data shown on the first and second pages of Attachment C, and the amino acid sequence changes are reflected in the HNFDL69 amino acid sequence data shown on the third page of Attachment C. In addition, The amino acid sequence data is reflected in an amino acid alignment originally filed with the present application as Figure 4, except for five residues at the 3' end of the polypeptide. These latter five residues are not in the alignment simply because they did not align with the second sequence in Figure 4, i.e., SEQ ID NO:18.

13. I believe that the actual nucleotide sequence of the human HNFDL69 cDNA clone is the same as that originally entered in the IRIS notebook.

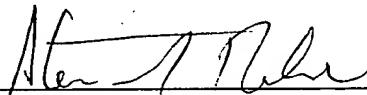
14. I am of the opinion that the correct EDG-1-like nucleotide and amino acid sequences would have been apparent to one skilled in the art in possession of ATCC Deposit No. 209004 and the data from the HNFDL69 sequencing run, as of the May 7, 1997 filing date of the present application. This is so because the correct EDG-1-like coding sequence can be readily

determined from the deposited clone and methods for sequencing this clone were routine in the art in May of 1997.

15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereupon.

7/15/99

Date



Steven M. Ruben



# American Type Culture Collection

12301 Parklawn Drive • Rockville, MD 20852 USA • Telephone: 301-231-5519 or 231-5532 • FAX: 301-816-4366

## BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE

### INTERNATIONAL FORM

#### RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3 AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2

RECEIPT  
RECEIVED

To: (Name and Address of Depositor or Attorney)

Human Genome Sciences, Inc.  
Attn: Robert H. Benson  
9410 Key West Avenue  
Rockville, MD 20850

HGS PATENT DEPT.

351PP-SKB

Deposited on Behalf of: Human Genome Sciences, Inc. (Ref. PP351PP-SKB)

PP351PP-SKB

Identification Reference by Depositor:

ATCC Designation

DNA Plasmid 405439  
DNA Plasmid 563238

209003 ✓

209004 ✓

The deposits were accompanied by:  a scientific description  a proposed taxonomic description indicated above.

The deposits were received  by this International Depository Authority and have been accepted.

### AT YOUR REQUEST:

We will inform you of requests for the strains for 30 years.

The strains will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the strains, and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said strains.

If the cultures should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace them with living cultures of the same.

The strains will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the cultures cited above was tested

On that date, the cultures were viable.

International Depository Authority: American Type Culture Collection, Rockville, Md. 20852 USA

Signature of person having authority to represent ATCC:

Barbara M. Hailey  
Barbara M. Hailey, Administrator, Patent Depository

Date:

**HGS**

**Human Genome Sciences, Inc.**  
**Sequence Worksheet**  
**HHPGS02XX: KIAA0001 [Homo sapiens]**

## Sequence Information

Gene Name: **KIAA0001 [Homo sapiens]**Library Name: **Human Hippocampus**

Date Sequenced:

Lab Sequenced: **HGS**

Date Scored:

Lab Scored: **HGS**HGS Code: **405439**Sequence ID: **HHPGS02XX**Library Catalog: **H0051**Group ID: **56754**Class: **2**In Group: **23**Previous Class: **2**

## Search Results

Overlap	Score	Description
gi 292057	136	EBI 2: EBI induced G-protein coupled receptor [Homo sapiens] >pir B45680 B45680 G protein-coupled peptide receptor EBI 2 - ]
gi 471121 gml	169	angiotensin II type 1b receptor [Homo sapiens] >gi 471121 gml PID d1003474 angiotensin II type 1b receptor [Homo sapiens] >]
gi 2580588	273	(AF002986) platelet activating receptor homolog [Homo sapiens] >sp 014626 014626 PLATELET ACTIVATING RECEPTOR HOMOLOG.
gi 2459585	528	VTR 15-20 receptor [Rattus norvegicus] >sp 035881 K101_RAT PROBABLE G PROTEIN-COUPLED RECEPTOR VTR 15-20.
gi 285995	538	KIAA0001 [Homo sapiens] >sp Q15391 K101_HUMAN PROBABLE G PROTEIN-COUPLED RECEPTOR KIAA0001.
gi 299615 gp	169	AT1 angiotensin II receptor [Oryctolagus sp.] >pir S A48857 AT1 angiotensin II receptor, AT1 ANG II receptor - rabbit >sp P
gi 217670 gp	171	angiotensin II receptor [Sus sp.] >gi 217670 gp D11340 PIG2R_1 angiotensin II receptor [Sus sp.] >sp P30555 AG2R_PIG TYPE-
gi 44 gp x62	171	adrenal angiotensin II type-1 receptor [Bos taurus] >pir S S15403 angiotensin II receptor type 1 - bovine >sp P25104 AC2R_B
gi 292057 gp	159	EBI 2: EBI induced G-protein coupled receptor [Homo sapiens] >pir S B45680 G protein-coupled peptide receptor=EBI 2 - human
gi 285995 gp	686	ORF [Homo sapiens] >gi 285995 gp D13626 HMRSC338_1 ORF [Homo sapiens]

## Sequence

ID: **HHPGS02XX** unannotated; DNA; 2247 BP.

KIAA0001 [Homo sapiens]

DT

XX

SQ

Sequence 2247 BP;  
 GCACGAGGAA CAGAACACTT TCTCATGTC AGGGTCAGAT TACAGAGCA CTCAAGACTT  
 TACTGAGGA AACTCAGAA ATCCCTATC ACAAAAGAGT TGGCAACTA AACTAGACA  
 TTAAAGGA AATAACGGAT GCGACTCTGC AGGCTGCAAT AACTACTACT TACTGGATAC  
 ATTCAACCC TCCAGAATCA ACAGTATCA GGTACCCAC AAGAAATGCA AGCGGTGAC  
 AATCTCACCT CTGGCCTGG GAGACCACTG CTGTCACCA GAGACTACAA ATCACCCAG  
 GTCCTCTTC CACTGCCTA CACTGCTCTG TTITITGTT GACTTATCAC AAATGGCTG  
 CGGATGAGGA TTTCCTTCA AATCGGAGT AAATCAACT TTATATTTT TCTTAAGAAC



Human Genome Sciences, Inc.  
Sequence Worksheet  
HHPGS02XX: KIAA0001 [Homo sapiens]

ACAGTCATT CTCATCTCT CATGATCTG ACTTTTCAT TCAAATCT TAGTGATCC  
AACTGGAA CAGGACCACT GAGAAGTTT GGACTGCAAG TTACCTCGT CATAITTTAT  
TTCACAAATGT ATTCAGTAT TTCACTCTG GGACTGATAA CTATCGATCG CTACCAAG  
ACCAACGGC CATTAAAC ATCCACCCC AAAAATCTT TGGGGCTAA GATTCTCTT  
GTTGCACTCT GCCCCATCAT GTCTTACTC TCTTGCCCA ACAGATCT GACCAACAG  
CAGGCCAGAG ACAGAATGT GAGAAATCC TCTTCCCTTA AATCAGAGT CGGCTCTC  
TGGCAAGAA TAGAAATTA CATCTGCAA GTCATTCTT GGTTAAATT CTTAATGTT  
ATTGATGTT ATACACTCAT TACAAGAA CTGTAACCT CATACTGAAG AACGAGGGT  
GTAAGGAAAG TCCCAGAA AAGGGAC GTCAAACTT TCATTATCAT TGCCTGATC  
TTTATGTT TGTCTCTT CCATTGTCG CGAAATCTT ACACCTGAG CCAACCCG  
GATGCTTGT ACTGCACTGC tCAAATAACT CTGTCATG TGAACAGAG CACTCTGG  
TTAACCTCT TAATCCATC CCTGATCC TCAACTATT TTTCCTTG CAAGTCTTC  
AGAAATCTT TGATAGTAT GCTGAAGTC CGCAATCTG CAACATCTT GTCCAGGAC  
AATAGGAAA AGAAACAGGA TGGGGTGC CGAAATGAG AGACTCCAAT GIAACAAAT  
TAACAAAGA ATATATTCAA TCTCTTGTG TICAGAATC GTTAACAA AGCCTAAGT  
AAAATATTA ACTGACCAAG AGCAACTAA GTTAATATA ATGACTCTAA AGAAACAGAA  
GATTACAAA GCAATTCA TTACCTTC CAGTATGAA AGCTATCTTA AAATATGAA  
AACTAACTA ACTGTAACCT GTATTAGCAG CAAACAAAC GACATCCAAAT TGICATCTG  
CATGCAAAC TACACAGAT TCATGTTG GCAGAGTTT GGCAAAATGA GTAACTCAT  
AATATTACT GAAATTATA AAATACATTA TGGTTCACAA TTTTATTT TCATAATCAA  
CTAAGGAAGA ACGATCAATT GGATATAATC TCTTACCAA AAATGATGTT TAAATGTT  
ATATACCTA GTCCTCTAAC CAAATCTGA CCTATGGGA TACTTATAA AATTAAGTA  
AGTCGGATAC ACAAGAATA ATAACTATTA ACTTTCACT ATTGGAAA AACCTAAGG  
ATTTAAACTA ATGAAACTG TATTCATG GACTTAATT TTATGTTA TTAGAAGAT  
AAACATTTA GAGACCTT ACAATTAAGA GAAAGAAATAT CGAAGTCATT AAAATAAGA  
GACTACATT TAGACATT TAATACATAA AAATATAGAA ATATTCCTT AATTCAG  
AAACTAGTT TACTAATT TTACACTTC ATAAATACCA TCACTGACAC TTACCTTAT  
TAATAGCT CTAGAAATA GCTGTAATT AGCTTAATGA ACATTTAAC TTAGGAAA  
AAAATTAATT AAATATGATT ACAAGTGC ACACCAAC TACTGAGAGG AAAGTGATG  
ATCTGTTGT AAATCTGTT TTGTATTGT GIGTATAAA TACAATTA CATTAAAC  
TAAATcatta aaaaaaaaaa AAAAAA  
//

Sequence Notes



Human Genome Sciences, Inc.  
Sequence Worksheet  
**HHPGS02XX: KIAA0001 [Homo sapiens]**

## Sequence Information

Gene Name: KIAA0001 [Homo sapiens]

Library Name: Human Hippocampus

Date Sequenced:

Lab Sequenced: HGS

HGS Code: 405439

Sequence ID: HHPGS02XX

Library Catalog: H0051

Group ID: 56754

Class: 2

In Group: 23

Previous Class: 2

## Search Results

Overlap	Score	Description
gi 292057	136	EBI 2: EBI induced G-protein coupled receptor [Homo sapiens] >pir B45680 B45680 G protein-coupled peptide receptor EBI 2 -
gi 471121 gnl	169	angiotensin II type 1b receptor [Homo sapiens] >gi 471121 gnl PID d1003474 angiotensin II type 1b receptor [Homo sapiens] >
gi 2580588	273	(AF002386) platelet activating receptor homolog [Homo sapiens] >sp 014626 014626 PLATELET ACTIVATING RECEPTOR HOMOLOG.
gi 2459585	528	VTR 15-20 receptor [Rattus norvegicus] >sp 035881 K101_RAT PROBABLE G PROTEIN-COUPLED RECEPTOR VTR 15-20.
<b>gi 285995 </b>	<b>538</b>	<b>KIAA0001 [Homo sapiens] &gt;sp 015391 K101_HUMAN PROBABLE G PROTEIN-COUPLED RECEPTOR KIAA0001.</b>
gi 299615 gp	169	AT1 angiotensin II receptor [Oryctolagus sp.] >pir S 448857 AT1 angiotensin II receptor, AT1 ANG II receptor - rabbit >sp P:
gi 217670 gp	171	angiotensin II receptor [Sus sp.] >gi 217670 gp D11340 PIG2R_1 angiotensin II receptor [Sus sp.] >sp P30555 AG2R_PIG TYPE-
gi 44 gp x62	171	adrenal angiotensin II type-1 receptor [Bos taurus] >pir S S15403 angiotensin II receptor type 1 - bovine >sp P25104 AG2R_B
gi 292057 gp	159	EBI 2: EBI induced G-protein coupled receptor [Homo sapiens] >pir S B45680 G protein-coupled peptide receptor=EBI 2 - human.
gi 285995 gp	686	ORF [Homo sapiens] >gi 285995 gp D13626 HUMRSC338_1 ORF [Homo sapiens]

## Sequence

ID HPGS02XX unannotated; DNA; 749 BP.  
KIAA0001 [Homo sapiens]

DT  
xx

Sequence 749 BP;

ARGTEHFIMS RVRLQEHSLR Y\*RKRLKSS1 TKGEGN\*TXT LKGKQYQMPIC RIQ\*TIIITGY  
IQTQMQQLS GNGQEMQAVD NLTSRANTS LCTRDYKIQ VLFFPLIXTVL FFVGLTNGL  
AMRIFQIRS KSNFTIFLN TVISDILMIL TFPFKILSDA KLGIGPIRTF VCGMTISVIFY  
FTMVISISFL GLITIDRYQK TIRPFKTSNP KNLIGAKILS WVIWAFMELL SLPAMMLINR  
OPRKVKVKC SFLKSEFGIV WHEIIVNVIQ VIFMINFLIV IVCYLTITKE LYRSVYRTRG  
VGKVRKKVN VVKFVIIAWF FICFVFFHFA RIFTYTLSQR DVFDCTAENT LFYVKESTLW  
LTSINACLDP FTYFFLCKSF RNSLJSLMKC FNSATSLQD NRKKEQDGID PNEETPM\*IN

Human Genome Sciences, Inc.  
Sequence Worksheet

**HHPGS02XX: KIAA0001 [Homo sapiens]**

\*LRKVFNLV FRTR\*SKALS KVIN\*RRSN\* VANNDSKETE DYKSNFHLPP QVERKLS\*NIE  
N\*SKL\*LY\*Q QNKRPITML HAKLHRHML AEFWQNE\*SY NYCNF\*NTL STTLEFFHQ  
LRKNDQDII FLRPMVWY IYSPSPLKS\* PIGILIKI\*V SGTHKE\*\*LL TFHY\*PRT\*G  
I\*TN\*NCI\*L DLIFXVLED KDLRPLQ\*R EETISLSK\*G DLL\*HSNTK KYNTSLLIE  
KVLILFYNF NTIITDLY \*IASK\*LLI RLMNLP\*\*K KIN\*T\*I\*LQSC TA\*LLRGK\*L  
ICL\*LLVCTIG VYKIQTVKL \*IIRKKKK  
//

**Sequence Notes**



Human Genome Sciences, Inc.  
Sequence Worksheet  
HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor

## Sequence Information

Gene Name: H.sapiens repeat polymorphism in LIPE gene 1

HGS Code: 563238

Sequence ID: HNFDL69XX

Library Name: Human Neutrophil, Activated

Library Catalog: H0271

Date Sequenced:

Lab Sequenced: HGS

Group ID: 2514675

Class: 1

Date Scored:

Lab Scored: HGS

In Group: 1

Previous Class: 1

## Search Results

Overlap	Score	Description
gb X65642 1	260	H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase.
gp X54937 HS	93	cannabinoid receptor [Homo sapiens] >pir S S17595 cannabinoid receptor - human >sp P21554 CB1R_HUMAN CANNABINOID RECEPTOR 1
gp X55812 RN	93	putative cannabinoid receptor [Rattus norvegicus] >pir S A33117 cannabinoid receptor - rat >sp P20272 CB1R_RAT CANNABINOID 1
gp L20334 MU	141	EDG-like receptor [Mus musculus]
gp U10699 RN	152	pH218 [Rattus norvegicus] >pir S JC1465 probable G protein-coupled receptor - rat
gp M31210 HU	210	EGF1 gene product [Homo sapiens] >pir S A35300 G protein-coupled receptor edg-1 - human >sp P21453 EDG1_HUMAN PROBABLE G P

## Sequence

ID HNFDL69XX unannotated; DNA; 1637 BP.  
DE H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase.  
XX  
DT

Sequence 1637 BP;  
GGCACGAGCC CACCTCTGGT CAAACCTCTAG TCAGCCCCG GGGAGGCCA TGAACGCCAC  
GGGGACCCG GTGCCCCCG AGCTCTCCA ACACCTCTGGC GGGAGGCCAC ACAGCCCGCT  
CATGGTCCTG CACTACACCC ACTCGGGCG GCTGTGGT GGGAGGCCAC CGAGGATGG  
CGGCTCTGG GCGCTGGGG GCTGTGGT GGGAGGCCAC TCCCTGGTG TGCTGGAGA  
CTTGCTCTGG CTGGGGCCA TCAACACCA CATGGCTGG CAAGCTGG TCTACTATGG  
CTCTGGCAAC ATTACGATGA GTGAACTCT CAAGGGGG GCTTACCTGG CCAAGCTGGT  
GCTGTGGG GCGGGACCT TCGCTCTGC GCGGGCCAG TGGTCTTAC GGAAGGGCT  
GCCTCTACCC GCGCTGGCG CTCACCTT CAGCTCTCTC TCTACTGCG AGTTCGCTT  
TGCCACCTTG GCGGGCCG TGGCAGAG CGGGACCC AACACCGCC GCGCTTAAGG  
CTTCATGGC CTCTGCTGGC TCTGGGCC GCTGTGGTGG ATCTGGCTT TCTCTGGCTG



Human Genome Sciences, Inc.  
Sequence Worksheet  
**HNFDL69XX: H.sapiens repeat polymorphism in LIPe gene for hor**

GAATTCCTG TGGCTTTC ACCCTGTC CAGCCTCTG CCCCTCTACT CCAGGCTA  
CATCCCTTC TGCCTAGTA TCTTCCCG CGTCTCTGCC ACCATCATGG GCCTCTATGG  
GCCATCTTC AGCTCTGTC AGGCAGGCG GCAGAGGCC CCAAGCCAG CGCCCGCC  
CAAGGCCCC AGCTCTGTA AGACGGGTCT GATGATCTG CTGGCTTCT TGCTGCTG  
GCTAACACTC TGGGGTGC TGCCTGGCA CGCTTCTAC TCAACCTCT TGGCTCTGG  
CATCATCTAC TCTTCCCA GCAGGGAGT GTGAGAGCC GTGCTAGCT TCTCTCTG  
CGGTTCTC AGCTGGCA TGCGAGGCC CGGGACTTC GTGGCGCG CGTCTGAG  
TCACTCCGA CCTCCACCA CGCACAGTC TCTGAGCC AGGGACAGCT TGGCTCTC  
CCCTCGCTC AGCTTCAAA TGCGGAGCC CCTGTCAGC ATCTCAGCG TGCGGACAT  
CTGAAGTGC AGCTTGCT GTGGATCTG CAACCAAGG GTGGTGCCA GGCAGGCC  
CCTGGGTAC AGGAAGCTT GTGACCAA CCTGGCTG TATGGAGG AGGAAGGG  
ACAAGCCCC ATGGACTTC CGGGGGCT CTGGGGCT CTGAGCCAT ATGGACTTC  
CCATTGCTTA TGCCTCACCC TGGACAAAGA GGCAACCAAC CCACCTCCCC GTAGGAGCG  
AGAGCACCT GTGGGGGG CGAGTGGT CCACACACC CGCTCTGT GTGATCTG  
GGAAGTCCG CCCTCTCT GGGCTCAGT AGGCTCCCA GGCTGCAAGG GTGGACTCT  
GGATCCATG CCTGGCAC ATGAGTTC GATCATGTA AAAAAAAA AAAAAAAA  
AAAAAAA AAAAAAA

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**Sequence Notes**



Human Genome Sciences, Inc.  
**Sequence Worksheet**

**HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor**

**Sequence Information**

Gene Name: H.sapiens repeat polymorphism in LIPE gene 1

HGS Code: 563238

Sequence ID: HNFDL69XX

Library Name: Human Neutrophil, Activated

Library Catalog: H0271

Date Sequenced:

Lab Sequenced: HGS

Group ID: 2514675

Class: 1

Date Scored:

Lab Scored: HGS

In Group: 18

Previous Class: 1

**Search Results**

Overlap	Score	Description
gb X65642  260	93	H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase.
gp X54937  HS	93	cannabinoid receptor [Homo sapiens] >pir S S17595 cannabinoid receptor - human >sp P21554 CB1R_HUMAN CANNABINOID RECEPTOR 1
gp X55812  RN	93	putative cannabinoid receptor [Rattus norvegicus] >pir S A33117 cannabinoid receptor - rat >sp P20272 CB1R_RAT CANNABINOID 1
gp L20334  MU	141	EDG-like receptor [Mus musculus]
gp U10699  RN	152	ph218 [Rattus norvegicus] >pir S JC1465 probable G protein-coupled receptor - rat
gp M31210  HU	210	BCG1 gene product [Homo sapiens] >pir S A35300 G protein-coupled receptor edg-1 - human >sp P21453 EDG1_HUMAN PROBABLE G PRO

**Sequence**

ID HNFDL69XX unannotated; DNA; 545 BP.  
 DE H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase.  
 XX  
 DT

Sequence 545 BP;

ARAHPASCLS OPPGEAMNAT GTPVAPESQO QLAAGGHSRL IMLHYNHSGR LAGRGGPFDG  
 GIGALRGILSV AASCVIVIEN LIVIAAITSH MRSQRMVYC IAVTNTMSDIL TGAAYLNL  
 LSGARTIFRLA PAQWETRKGL LFTALAASTF SLLFTAGLRF ATMVRPAES GATKTSRVG  
 FIGLICWLLAA LLGMLFLIGW NCLCAFDRCS SLLPLYSRY ILFCLVIFAG VLATIMGELYG  
 AIFRLVQASG QKAPRPAAARR KARRLKVIL MILLAFIVW GFLFGHILAD VFGSNLMAQE  
 YLRGMDWILA LAVLNSAVNP ITYSFRSREV CRAWLSELC GCLRLGMRGP GCLLARAVEA  
 HSGCASTIDSS LIRPRDSFRRGS RSLSRMRP LSSISSVRSI \*SCSLACGMC NIRVRARQAL  
 LGYRKLCARN LALYGEQGTG QAFMDLPGGL SELLTFYCLAA HCLWMLTLDKE ATTPPPRSR  
 EHFGWGASGF PTTFLICDSG EVPAPLWASV GLRCKGWTW GCMEMQH\*SS IMVKKKKKK  
 KKKKK

~~HGS~~

Human Genome Sciences, Inc.  
Sequence Worksheet  
HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor

11

Sequence Notes